Instructions:

1. Read the *IAQ Backgrounder* and the information in this section.
2. Put a "check" in the "yes" or "no" box beside each item as appropriate.
3. Make comments as desired in the "Notes" section.
4. If any "no" boxes are checked, put a check in the circle beside the "need help" statement.
5. Return this checklist to the IAQ Coordinator and keep a copy for future reference.

Name:

Room or Area:

School:

Date Completed:

Signature:

Teacher's Classroom Checklist

GENERAL CLEANLINESS

Regular and thorough classroom cleaning is important to ensure good indoor air quality. While custodians typically clean the classroom, as a teacher you also can play an important role in promoting and maintaining classroom cleanliness. The presence of dirt, moisture, and warmth also stimulates the growth of molds and other biological contaminants. Unsanitary conditions attract insects and vermin, leading to possible indoor air quality (IAQ) problems from animal or insect allergens. The overuse or improper use of pesticides for secondary control of insects, vermin, and head lice can cause IAQ problems.

Reminder: Clean spills promptly

- For spills on carpets, contact custodial staff immediately (carpets need to be cleaned properly, and dried within 24 hours to prevent mold growth)
- Request that unit ventilator be cleaned and filter replaced if spilled liquid goes into the unit
- Report previous spills on carpets or in unit ventilators because they can affect current indoor air quality

❑Y ❑N Classroom is clean

❑Y ❑N Classroom is dusted and vacuumed thoroughly and regularly

❑Y ❑N Trash is removed daily

❑Y ❑N Food is not kept in classroom overnight

❑Y ❑N Animal food, if any, is stored in tightly sealed containers

❑Y ❑N Room is free of pests

❑Y ❑N Room is free of the use of scented cleaners

❑Y ❑N Spills cleaned

O Need help with cleaning or pest control

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ANIMALS IN THE CLASSROOM

Certain individuals, in particular those with asthma, are sensitive to animal fur, dander, body fluids and feces, and may experience reactions to these allergens. Furthermore, individuals can become sensitized (made allergic) by repeated exposure to animal allergens.

❑Y ❑N Exposure to animal allergens minimized.

❑Y ❑N Animals kept in cages as much as possible; not allowed to roam

❑Y ❑N Cages cleaned regularly

❑Y ❑N Animals located away from ventilation system vents to avoid circulating allergens throughout the room or building

❑Y ❑N Alternatives to animals used when possible

❍ Need help minimizing exposure to animal allergens

Take special care with asthmatic or other sensitive students

❑Y ❑N School nurse consulted about student allergies or sensitivities (privacy laws may limit the information that health officials can disclose)

❑Y ❑N Parents asked about potential allergies in a note that students take home, or during parent teacher conferences

❑Y ❑N Check for allergies when new students enter the class

❑Y ❑N Sensitive students located away from animals and habitats

❍ Need help determining if students have allergies

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DRAIN TRAPS IN THE CLASSROOM

Drain traps, if present, can become a problem when the water in the drain trap evaporates due to infrequent use, allowing sewer gases to enter the room.

❑Y ❑N Drain traps filled regularly

❑Y ❑N Water poured down floor drains once per week (approx. 1 quart of water)

❑Y ❑N Water run in sinks at least once per week (about 2 cups of water)

❑Y ❑N If not regularly used, toilets flushed once each week

❍ Need help filling dry drain traps regularly

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EXCESS MOISTURE IN CLASSROOMS

Excess moisture contributes to mold growth. Mold can trigger allergic reactions and asthma in sensitive individuals. Mold can also cause odors and other IAQ problems. Excess moisture is the result of condensation on cold surfaces, leaking or spilled liquid, or excess humidity. Note here any signs of moisture that exist now or that recur.

Condensate (condensed water, or "fog") on cold surfaces

❑Y ❑N Windows, window sills, and window frames free of condensate

❑Y ❑N Cold water pipes free of condensate

❑Y ❑N Indoor surfaces of exterior walls free of condensate

❍ Excess condensate found

Check for leaks or signs of moisture from plumbing or roofs

❑Y ❑N Area around and under classroom sinks free of leaks

❑Y ❑N Classroom lavatories free of leaks

❑Y ❑N Ceiling tiles or walls leak-free (discoloration may indicate periodic leaks)

❍ Found leaks or signs of moisture

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THERMAL COMFORT

Temperature and relative humidity can affect comfort and IAQ. Changing thermostat settings or opening windows to try to control temporary fluctuations in temperature can worsen comfort problems and also have an adverse effect on other parts of the school.

Check comfort factors

❑Y ❑N Temperature (generally 72°F-76°F)

❑Y ❑N No signs of draftiness

❑Y ❑N No direct sunlight shining on students

❑Y ❑N Humidity is acceptable. (typically, too high if higher than 60% relative humidity [RH]–or too low if lower than 30% relative humidity)

❑Y ❑N Room usually comfortable

❍ Need help, room frequently uncomfortable

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VENTILATION

Ventilation is the process by which stale indoor air is exhausted to the outside, and outdoor air is drawn into the building. You may either have mechanical ventilation (supplied by fans) or natural ventilation (i.e., operable windows).

Determine how your classroom is ventilated (see IAQ Backgrounder)

❑Y ❑N Unit ventilator located

❑Y ❑N Air supply and return vents located

❑Y ❑N Windows are operable

❍ Need help determining type of ventilation

If you have mechanical ventilation, confirm that air is flowing into the room from the air supply vent(s)

Check for airflow by holding a piece of tissue paper near the air supply vent(s); if air is flowing, the tissue will flutter away from the supply vent. Make sure that the airflow is not diverted or obstructed by books, papers, furniture, or other obstacles. Never place anything on top of unit ventilators.

❑Y ❑N Air is flowing from air supply

O Need help, supply air is not flowing

If you have mechanical ventilation, confirm that air is flowing from the room into the air return grille(s)

Check for airflow at air return grille(s) in the same manner as with previous activity. If air is flowing, the plastic or tissue will be pulled toward the return. A piece of plastic that nearly covers the grille will stick to the face of the grille if air is flowing. Make sure airflow is not obstructed by books, papers, furniture, or other obstacles.

❑Y ❑N Air is flowing without obstruction

O Need help, exhaust air is not flowing

Check for unexplained odors

Improperly operated or poorly maintained ventilation systems may cause IAQ problems. Odors, or the need to use scented air fresheners, may indicate a ventilation problem. The ventilation system can carry air contaminants from another location in the school to your classroom.

❑Y ❑N No smell of vehicle exhaust

❑Y ❑N No smell of kitchen/food

❑Y ❑N No smell of "chemicals"

❑Y ❑N No smell of mold or mildew

❑Y ❑N Found source of odors and corrected problem

O Need help, sometimes smell unexplained or unpleasant odors in classroom

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NOTE: Conduct the following activities as appropriate to your classroom.

LOCAL EXHAUST FANS

Local exhaust fans and fume hoods can be used to prevent air pollutants and moisture from accumulating in, or spreading beyond, the local area or classroom. Local exhaust fans may be used to exhaust entire rooms (e.g., bathrooms or locker rooms). Fume hoods are appropriate for activities that generate significant quantities of pollutants in a local area within a room (e.g., science experiments, spray painting, and welding).

- Determine if your classroom activities generate air pollutants and whether your classroom is

equipped with local exhaust fans and/or fume hoods

- If there are no activities that generate air pollutants, you do not need a local exhaust fan or fume hood

❑Y ❑N No major pollutant generating activities

❑Y ❑N Have fume hood and/or exhaust fan

❍ Need fume hood and/or local exhaust fan

Confirm that fume hoods and local exhaust fans function properly

Check for air flow when fans are on (hold a piece of tissue paper near the fan - or within the space of the fume hood - to see whether it is pulled away from the room).

❑Y ❑N Fume hoods are in good repair; not cracked, broken, or pulling away from the ceiling or wall

❑Y ❑N Fan is operated. (Note if fans are not operated due to noise.)

❑Y ❑N Adjacent rooms or halls odor free.

❍ Need help, hood or exhaust fan does not appear to function properly

Confirm that fume hoods and fans are used whenever activities that generate pollutants take place

Train students and others who use the classroom or equipment on when and how to use the fume hoods and fans.

Conduct pollutant generating activities under the fume hood with exhaust fan turned on. Monitor use throughout the year.

Confirm that fume hoods and fans are used whenever activities that generate pollutants take place

❑Y ❑N Fans and fume hoods are used properly

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ART SUPPLIES

Art supplies may emit contaminants during use and storage. In addition, certain activities (e.g., firing ceramic kilns) may generate air contaminants or heat up the classroom, causing thermal discomfort to occupants.

Although potentially toxic supplies have appropriate labeling since a 1990 federal law took effect, it is still up to teachers to see that safety precautions are followed. Examples of art supplies and activities that may contribute to IAQ problems include: solvents, inks, adhesives, and glues; wax varnishes and lacquers; powdered pigments, acids, clays, paints, and firing kilns.

Learn about your supplies

Check to see whether your supplies (noted above) are listed as toxic or nontoxic. Supplies that are nontoxic will be labeled AP Nontoxic, CP Nontoxic, or Health Label (without warning conditions) by the Art and

Craft Materials Institute or the Center for Safety in the Arts.

Read labels and identify precautions regarding fumes or ventilation. If you make purchase decisions, or recommend products for purchase, confirm that supplies are safe to use.

❑Y ❑N Supplies okay

❍ Need help inventorying supplies, interpreting label warnings, or determining if supplies are safe

Follow good safety, handling, and storage practices

Have appropriate procedures and supplies available for spill control. Label all hazardous supplies with date of receipt/preparation and pertinent precautionary information. Tightly seal containers. Follow recommended procedures for disposal of used substances. Secure compressed gas cylinders. Supply storage areas should be separate from classroom and ventilated.

❑Y ❑N Following good handling and storage practices

❍ Need help developing good safety, handling, or storage practices

Minimize exposure to hazardous materials

Substitute less- or non-hazardous materials where possible. Use local exhaust fans. Isolate contaminant producing activities or operations. Use moist-premixed products rather than powdered products. Use techniques that require the least amount of materials.

❑Y ❑N Exposure minimized

❍ Need help minimizing exposure to art supplies

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SCIENCE SUPPLIES

Some supplies used as teaching aids in science laboratories may contribute to IAQ problems. Science experiments should be conducted in well ventilated rooms using fume hoods and local exhaust systems wherever appropriate. Basic safety precautions can prevent spills or other mishaps that cause air contamination, and should be followed at all times. Examples of science supplies that may contribute to IAQ problems include: solvents, acids, flammables, caustics, biological products, and compressed gases.

Learn about your supplies. Read labels and identify precautions regarding fumes ventilation. Request information and Material Safety Data Sheets (MSDS) from suppliers and manufacturers.

❑Y ❑N Supplies reviewed

❑Y ❑N MSDS on hand

❍ Need help determining impacts of supplies

Follow good safety, handling, and storage practices

Obtain guidance documents:

- **School Science Laboratories:** *A Guide To Some Hazardous Substances*, 1984 Council of State Science Supervisors and U.S. CPSC, 800-638-2772 (800-492-8104 in MD) U.S. GPO #1984 421-506/3308 *Manual of Safety & Health Hazards In The School Science Laboratory*, 1980 NIOSH/ U.S. Department of Health & Human Services, National Technical Information Service, 703-487-4650, # PB-85-238-228

Have appropriate procedures developed and supplies available for spill control (i.e., absorbent materials to control the spread of spills).

❑Y ❑N Spill procedures in place.

❑Y ❑N All chemicals labeled accurately with date of receipt/ preparation and pertinent precautionary information

❑Y ❑N Supplies stored according to manufacturers' recommendations

❑Y ❑N Recommended procedures for disposal of used substances understood and followed.

❑Y ❑N Compressed gas cylinders secured.

❑Y ❑N Storage areas separate from main classroom area and ventilated separately

❍ Need help with good safety, handling, or storage practices

Minimize exposure to hazardous materials

❑Y ❑N Diluted substances rather than concentrates used wherever possible

❑Y ❑N Techniques that require the least quantity of hazardous materials used

❑Y ❑N Fume hoods capture respirable particles, gases, and vapors released within them

❑Y ❑N Exhaust fans operate

❍ Need help minimizing exposure to supplies

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INDUSTRIAL AND VOCATIONAL EDUCATION SUPPLIES

Industrial and vocational education materials and operations can create IAQ problems. Examples of the kinds of activities and supplies that may contribute to IAQ problems include: machining, solvents, grinding, fuels, painting, soldering, welding, baking/ heating, and adhesives.

Learn about your supplies

Read labels and identify precautions regarding fumes or ventilation. Request information and Material

Safety Data Sheets (MSDS) from suppliers and manufacturers

❑Y ❑N Supplies reviewed

❑Y ❑N MSDS on hand

O Need help determining impacts of industrial/vocational supplies

Follow good safety, handling, and storage practices

Develop appropriate procedures and have supplies available for spill control (e.g., absorbent materials to control the spread of spills).

❑Y ❑N Spill procedures in place.

❑Y ❑N Supplies stored according to manufacturers' recommendations

❑Y ❑N Recommended procedures for disposal of used substances understood and followed.

❑Y ❑N Compressed gas cylinders secured.

❑Y ❑N Storage areas separate from main classroom area and ventilated separately

O Need help with good safety, handling, or storage practices

Minimize exposure to hazardous materials

❑Y ❑N Instructional techniques that require the least quantity of materials used

❑Y ❑N Fume hoods capture respirable particles, gases, and vapors released within them

❑Y ❑N Exhaust fans operate

O Need help minimizing exposure to supplies

LOCKER ROOM

Locker room conditions that affect indoor air quality include: standing water, high humidity, warm temperatures, and damp or dirty clothing. In addition, some of the methods necessary to control germs and odors in the locker room (e.g., use of disinfectants) may themselves contribute to indoor air quality problems if used improperly (e.g., if sprayed into the air instead of directly onto surfaces).

Verify that showers and other locker room areas are cleaned regularly and properly.

Limit use of chemical cleaners and disinfectants to times when areas are unoccupied. Run exhaust fans to remove moisture and odors.

❑Y ❑N Locker room and showers cleaned regularly and properly

O Need help to have showers and locker room cleaned regularly and properly.

Maintain cleanliness and reduce excess moisture in the locker room

Remove wet towels regularly. Wash and dry soiled practice uniforms regularly. Encourage students to take soiled clothes home regularly. Operate exhaust fans to remove moisture.

❑Y ❑N Soiled clothes and towels are removed regularly

O Need help to have soiled clothes or towels removed regularly

❑Y ❑N **NO PROBLEMS TO REPORT.** I have completed all activities on this Checklist, and I do not need help in any areas.